BUREAU OF LAND MANAGEMENT
ELKO DISTRICT
WELLS FIELD OFFICE

Proposed Northeast Nevada Wild Horse Eco-Sanctuary

BLM
NEVADA – Elko District, Wells Field Office

NATIONAL SYSTEM OF PUBLIC LANDS
U.S. DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

General Information

The proposed Northeast Nevada Wild Horse Eco-Sanctuary (proposed Eco-Sanctuary) is located approximately 25 miles south of Wells, NV, generally between U.S. Highway 93 and Alternate U.S. Highway 93. The headquarters for the proposed Eco-Sanctuary and associated recreational and educational opportunities would be located at the current Warm Creek Ranch. The Warm Creek Ranch is located adjacent to the proposed Eco-Sanctuary area.

The Warm Creek Ranch, proposed base of operations, summer 2011.

The Proposal

The proposal would create a privately-managed, non-reproducing wild horse eco-sanctuary under Federal ownership and is in response to the BLM seeking innovative methods to address the long-term management of excess horses on western rangelands. The proposed project, submitted by Saving America's Mustangs (SAM), would be located on approximately 14,000 acres of private land and 508,000 acres of public land inside the current Spruce Allotment. Under the proposal, SAM would improve and maintain fencing and water wells and oversee management of the horses, which would remain under Federal ownership. SAM would also

provide Western history- and wild horse-related education and promote eco-tourism such as non-motorized vehicle tours of the area, rustic accommodations similar to historic Native American dwellings as well as provide classroom instruction and educational seminars about wild horses and American Indian history.

The proposal would require amending the Wells Resource Management Plan in two ways:

- restructuring three existing wild horse herd management area (HMA) boundaries and revising management objectives; and
- removing and retiring the portion of the Spruce Grazing Allotment east of U.S. Highway 93 from the N1 grazing district.

The proposal would result in the adjustment and/or modification of portions of the existing Spruce-Pequop, Goshute, and Antelope Valley HMAs to create a new modified herd management area to be managed as an eco-sanctuary. Those areas of the HMAs that are not within the proposed Eco-Sanctuary would be evaluated to determine their ability to sustain a viable horse population with reduced acreage and water resources.

The proposed Eco-Sanctuary would not affect recreational access, would include hunting, and would not affect current or future mining interests in the area.

Publication of the Notice of Intent begins a 30-day public scoping period to determine relevant issues that will influence the scope of the environmental analysis and guide the process for developing the Environmental Impact Statement (EIS), including the development of alternatives. The BLM is asking the public for ideas for alternatives as well as any issues and/or concerns that need to be addressed in the EIS analysis. The potential effects to Greater sage-grouse and other wildlife habitat, potential effects to archaeological resources, ensuring access for recreation, and ability to manage healthy wild horse populations are some of the issues already identified by the BLM to be addressed in the EIS.

It is the goal of the BLM to have a written, detailed management plan for the proposed Eco-Sanctuary at the end of the EIS process that would be applied if the proposed Eco-Sanctuary is the alternative selected for implementation by the authorized officer. The selected alternative would need to ensure the attainment or making significant progress toward attainment of the *Northeastern Great Basin Area Standards and Guidelines for Rangeland Health*.

Conversion to Horses

Determining the correct carrying capacity for the proposed Eco-Sanctuary is one of the most important components in regards to vegetation, wildlife and long-term sustainability. Carrying capacity refers to the maximum stocking rate possible year after year without causing damage to vegetation or related resources; in addition to site characteristics, it is a function of management goals and management intensity (Holechek, Pieper, and Herbel, 2004).

When the carrying capacity of the Spruce Allotment was determined in the early 1990s, AUMs were set aside for wild horse and wildlife consumption. However, this early 1990s carrying capacity analysis assumed that the majority of the AUMs in the Spruce Allotment would be

utilized by cattle, whereas with the proposed Eco-Sanctuary there would be no AUM consumption by livestock. Differences in cattle and wild horse grazing habits, dietary needs, and physical capabilities need to be accounted for, as horses differ from cows in many important ways. Unlike cows, horses have both upper- and lower- incisors, which enables them to graze plants much closer to the ground level. Horses also have mono-gastric digestive systems (one stomach), which is a much less efficient mechanism for extracting nutrients from consumed forage than the ruminant digestive systems found in cows. Horses therefore must consume substantially more forage to sustain themselves than a similar sized cow. Also, there have been changes in wildlife management that need to be addressed to ensure adequate forage and habitat is available for wildlife populations.

An example of possible conversion factors from cattle to horses is shown in Table 1 below. The animal unit equivalents range from a 1:1 ratio to a more conservative ratio of 1:1.8. These example conversions only include AUMs on public land previously reserved by the cattle permit; AML and AUMs on private land are not included.

Table 1. Possible Animal Unit Equivalents for Conversion from Cattle to Horses.

Active AUMs	Number of Cattle for 12 months	Animal Unit Equivalents	Number of Horses for 12 months
10,908	909	1	909
		1.25	727
		1.5	606
		1.8	505

Fencing

The proposed Eco-Sanctuary boundary is approximately 155 miles long; 97 miles of the boundary, or 62%, is actually fenced. The rest of the boundary utilized natural barriers to keep cattle in the allotment; however, the same natural barriers would not be effective at containing horses as they will utilize steeper slopes than cattle.

Because natural barriers do not hinder wild horse movement on and off of the proposed Eco-Sanctuary, it has been proposed to fence all portions of the boundary that are currently unfenced; depending on the route selected for the fencing, approximately 53 to 72 miles of new fence would be required.

Water Sources

Water is such a limiting factor that at one time the previous permittee proposed the construction of 5 new water wells and approximately 100 miles of pipeline throughout the northern and central portions of the allotment. The most productive springs in the allotment are developed on private land and diverted into pipelines and troughs; many of the remaining springs provide low flows. There are 23 wells and 4 pipelines on public land for watering within the proposed Eco-Sanctuary. Responsibility for maintenance of the wells and pipelines are all assigned to SAM.

Grazing History

The proposed Eco-Sanctuary area was originally winter range (valley areas) for as many as 25,000 sheep and summer range (Spruce Mountain) for 1,500-3,000 sheep. Sheep use gradually decreased and in 1964 application was made to graze cattle in winter. A yearlong cattle operation began in the east half of the allotment in 1968 (today's Spruce Allotment). The Spruce Allotment was adjudicated for sheep use in the late 1960's despite cattle use.

An Environmental Assessment (EA) was completed on December 15, 1993 analyzing a change in kind of livestock from sheep to cattle. It was concluded that conversion to cattle would be more beneficial overall. The Spruce Allotment Evaluation (AE) was issued in 1995 and a Management Action Selection Report (MASR) was issued in 1997. The Proposed Multiple Use Decision (PMUD) for the Spruce Allotment was issued on November 21, 1997 and was protested by the permittees.

The Final Multiple Use Decision (FMUD) for the Spruce Allotment was signed on January 30, 1998. The FMUD officially implemented a rotation system and split the old Spruce Allotment into two new allotments: Valley Mountain and Spruce. The decision was appealed and settled by a Stipulated Agreement in 2002 that set the total preference at 13,423 AUMs (10,965 active AUMs and 2,458 suspended AUMs) for the new Spruce Allotment.

As outlined in the FMUD, the season of use on the Spruce Allotment is year round (3/1 to 2/28) with a rotation system that used the mountain area in the summer/fall and the flats in the winter/spring. The rotation separated livestock grazing into two cattle herds, one of which grazed year round and the other that grazed in the winter.

SAM's Grazing Permit

The base property for the Spruce Allotment grazing preference was purchased in August 2010 by OTS, LLC; in September 2011 OTS, LLC conveyed the base property to SAM. The base property procured by OTS, LLC, and subsequently SAM, is all located within the boundaries of the Spruce Allotment and totals approximately 14,000 acres (just less than 12,000 acres of it is contiguous, the rest is scattered).

Of the total 13,423 AUMs of preference on the Spruce Allotment, the previous permittees retained 57 AUMs and transferred the rest (10,908 active AUMs and 2,458 suspended AUMs) to OTS, LLC, which in turn has been transferred to SAM. The suspended AUMs require the completion of a carrying capacity analysis to determine if the AUMs are now available before they can be made active. The previous permittees will utilize their AUMs in a grazing allotment located on the west side of Highway 93, outside of the proposed Eco-Sanctuary area. SAM will utilize the rest of the Spruce Allotment located on the east side of Highway 93.

SAM's grazing permit was valid beginning on March 1, 2012.

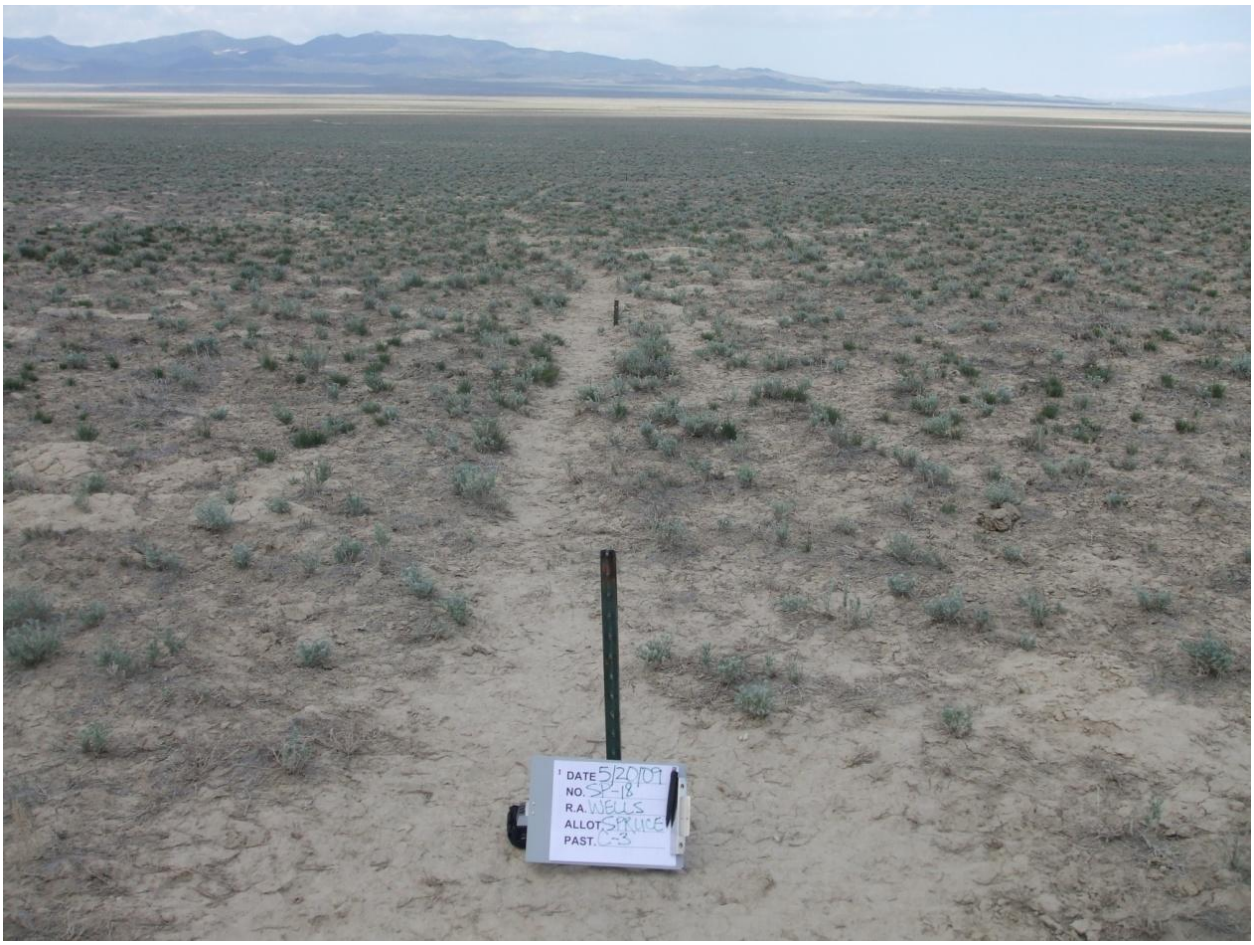
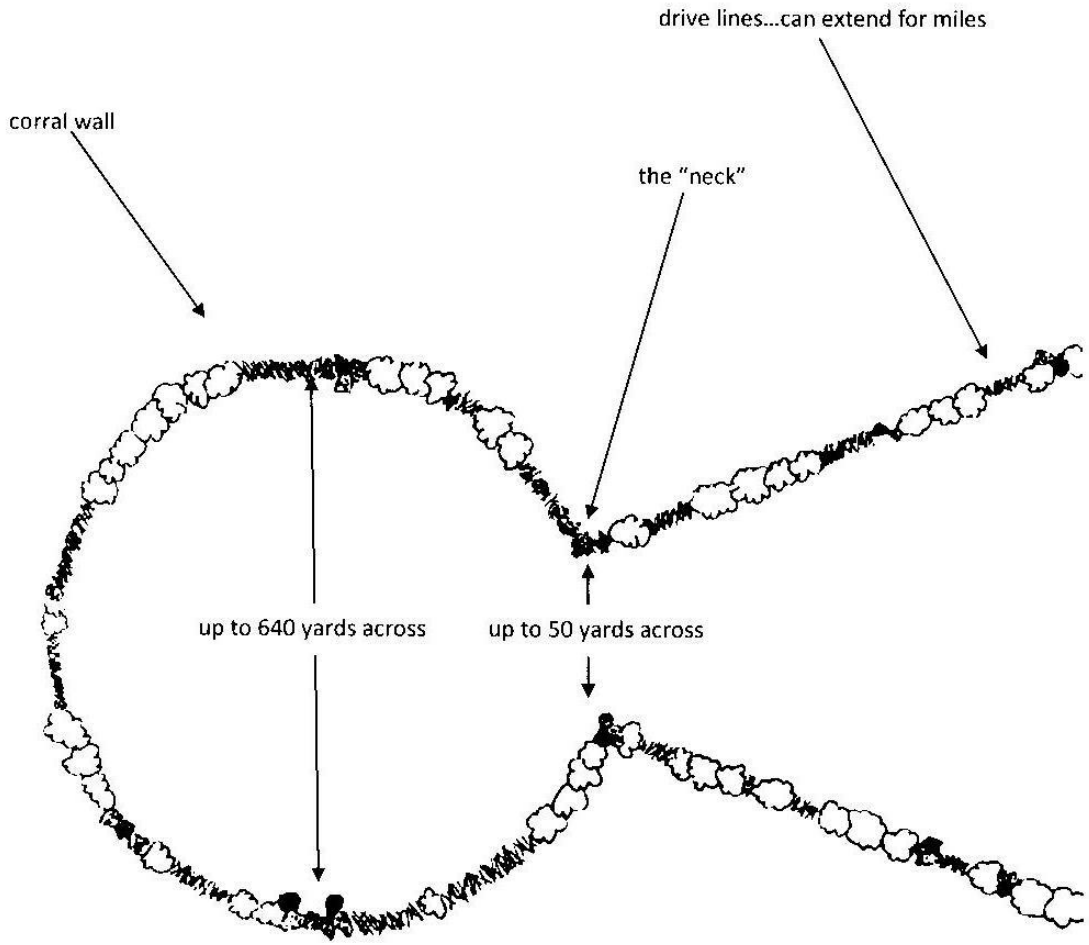


Photo of vegetation at monitoring site SP18, looking west across Antelope Valley at the Dolly Varden Mountains from the base of the southern end of the Goshute Mountains taken in May 2009.

Cultural Resources

The proposed Eco-Sanctuary contains some of the most important, rare and fragile prehistoric archaeological resources known to the Great Basin. This area also holds some of the most important mining districts in northeastern Nevada.

This area is comprised of approximately 525,000 acres, of which just about 2 percent (10,000 acres) has been surveyed for cultural resources. Despite such a limited extent of archaeological inventory, the area is known to contain 1,265 archaeological sites, or about 50 sites per square mile. Assuming site density is similar to previously inventoried areas, it is estimated that this area contains over 42,700 archaeological sites. This site density is among the highest in the Great Basin and is comparable to many areas of the American Southwest. What sets this area apart, in addition to the high site density, is the high density of prehistoric pronghorn traps, which are arguably the most unique and significant aboriginal structures in the Great Basin, and the historically significant Spruce Mountain Mining District.



An idealized representation of a pronghorn trap.

Pronghorn Traps

Prehistoric pronghorn traps were built by native peoples of this area before contact with European settlers. Known to occur as large as 4/10 of a mile across and containing as much as 2,000 linear yards of fencing, these juniper corrals were built using only stone tools, fire and manual labor. Research in Oregon's High Desert suggests that Western Juniper can preserve well on the surface for at least 850 years, and radiocarbon samples from antelope traps in the Elko District have been found to be as old as 500 years and a trap within the proposed Eco-Sanctuary dated to over 800 years old. This area contains more pronghorn traps per square mile than anywhere else in the Great Basin, and very possibly more than anywhere else in the world. Not only are these sites an architectural marvel, they also have enormous data potential. Apart from their enormous archaeological significance, data from pronghorn traps have the potential to inform modern wildlife management policies, address global climate change, explore socio-political phenomenon, and reveal past human behavioral strategies for dealing with conflict and change.

Pictures of pronghorn traps.

Spruce Mountain Mining District

The heart of the Spruce Mountain mining district covers approximately 17 square miles and was in operation intermittently from 1869 through the 1960s. Silver, lead, copper and zinc were the most common deposits. The heyday of the Spruce Mining District began around 1917 and lasted through the 1940s, mostly due to increasing mineral demands spawned by America's entrance into World War I. The majority of the currently existing standing structures in the mining district date to this time period. During this period, the major producers for the district were the Black Forest, Monarch, Killie and Bullshead. In 1928, the Monarch and the Black Forest were consolidated by the Monarch Lead and Silver Company. Two years later, the company constructed the bronco tunnel which connected these two mines through the heart of the mountain. Several of the smaller operations closed down during the depression years, but the major mines kept afloat. Some mineral exploration has occurred in the district since the 1950s, but there has not been any large scale production.

Picture of the Spruce Mining District.

Pictures of the Spruce Mountain Mining District.

Herd Management Areas (HMAs)

The Spruce/Pequop, Goshute and Antelope Valley HMAs are all partially located within the proposed Eco-Sanctuary area; a total of 70 percent of this area is designated as an HMA. Based on March/April 2012 census flights, the current estimated total population for all three HMAs is 1,384 wild horses. The established Appropriate Management Levels (AML) and the percentage of the HMA within the boundaries of the proposed Eco-Sanctuary are described in Table 2 below.

Table 2. Established AML for Entire HMA and Percentage of HMA in proposed Eco-Sanctuary

HMA	AML	% of HMA in proposed Eco-Sanctuary
Spruce/Pequop	48-82 wild horses	93%
Goshute	74-123 wild horses	27%
Antelope Valley	155-259 wild horses	14%
Total Combined AML	277-464 wild horses	--

Wild horses in the northeast corner of the proposed Eco-Sanctuary in the Goshute HMA, 2010

Wild Horses in the proposed Eco-Sanctuary area crossing a winterfat flat.

Wilderness Study Areas (WSAs)

There are three WSAs within or overlapping the boundaries of proposed Eco-Sanctuary: the Bluebell, Goshute Peak and South Pequop WSAs.

The Nevada Wilderness Study Area Notebook (Elko District Office, October 2000), states that the Goshute Peak WSA consists of steep, mountainous topography with small stands of mixed conifers and many canyons radiating from the central ridgeline, providing outstanding naturalness. Man's imprints are absent from the higher elevations. In the lower elevations, man's imprint is present but not noticeable due to the dense pinyon-juniper woodlands. There is approximately one mile of cherry-stem road, 27 miles of vehicular ways, an old deer hunter's cabin, a deer hunting camp, a corral, one mile of barbed wire fence, and one developed spring. Most of these intrusions penetrate less than one mile into the WSA. Only the raptor research project, with its plywood blinds, tents and maintained access trail affects the higher elevations. Outstanding opportunities for solitude exist within the WSA due to topography and densely wooded areas. The WSA also has outstanding opportunities for primitive and unconfined recreation. Special features of the WSA include the raptor migration route and the presence of bristlecone pine trees at higher elevations.


The Goshute Peak WSA.

The South Pequop WSA is predominately natural with densely-forested, highly dissected terrain essentially untouched by man. Vegetation ranges from sagebrush and grasses on the south-facing slopes to dense stands of white fir and limber pine on the northern exposures. Pinyon-juniper woodlands occupy much of the mountain range, while nearly impenetrable shrub thickets cover many slopes. The area's 11 miles of vehicle ways are generally unnoticeable and do not affect its naturalness. There are outstanding opportunities for solitude due to the steep canyons extending east and west from the knife-edged ridgeline and dense vegetation. Occasionally military aircraft disrupt the solitude. The WSA also contains outstanding opportunities for primitive and unconfined recreation. Bristlecone pine trees are present in higher elevations, and the area offers outstanding opportunities for fossil collecting.

Bluebell WSA consists of steep, mountainous terrain, with many canyons radiating from the central ridgeline of mountain peaks. The WSA is essentially free of man's imprints. Manmade features include approximately 20 miles of ways, eight miles of cherry stem roads, four corrals, one mile of barbed wire fence, two developed springs, and 10 small pit reservoirs. Outstanding opportunities for solitude exist within the WSA due to the topographic and vegetative screening. There are about 15 drainages and hundreds of small canyons with moderately dense stands of pinyon pine, limber pine, Utah juniper, white fir, and mountain mahogany. Bristlecone pine trees also occur at higher elevations. Military aircraft sometimes disrupt the solitude. The Bluebell WSA does have moderate to high potential for mineral resources, including gold. Because of this mineral potential and the less than outstanding wilderness values in the northern part of the WSA, the entire area is recommended for non-wilderness by the BLM.

Recreation

Spruce Mountain is a popular recreation area in Northeastern Nevada. Spruce Mountain has an elevation of 10,262 feet and is the highest point on the Spruce Mountain Ridge. The drive to Spruce Mountain is scenic and includes passing through the ghost town of Sprucemont, which is considered to be the best ghost town site in the county. Hiking, hunting, Off-Highway Vehicle (OHV) use and dispersed camping are the most utilized recreation opportunities in the area.

An OHV familiarization tour of Spruce Mountain in 2004.

The Wells Field Office of the Elko District is preparing a plan to manage recreation in the Spruce Mountain Area (delineated as Nevada Department of Wildlife Hunt Unit 105). An environmental assessment is being prepared to identify the Spruce Mountain Area as an Extensive Recreation Management Area to manage and improve recreational opportunities.

Since summer 2006, BLM has established and identified major routes open to OHV use. These routes have been marked with signs and numbered stickers.

Wildlife

The proposed Eco-Sanctuary area is one of the most important wildlife hubs in the Elko District. This area provides habitat for a wide diversity of wildlife species including big game, upland game birds, small mammals, passerine birds, waterfowl, raptors, amphibians, reptiles and invertebrates. This area also serves as a major migration corridor for big game and raptors.

Hawk Watch

Raptor migration is so significant in the proposed Eco-Sanctuary area that Hawk Watch International (HWI) runs the Goshute Mountains Raptor Migration Project on top of the Goshute Mountains. The project monitors long-term trends in populations of raptors using the Intermountain Flyway. HWI's counting and banding studies provide valuable information about the ecology, status, conservation needs, migratory routes, breeding and wintering distribution of raptor populations. For more information, visit www.hawkwatch.org.

Bull Elk wintering in the Goshute Mountains.

Big Game

The proposed Eco-Sanctuary area provides seasonal habitat for several big game species. There are approximately 37,836 acres of winter and 25,359 acres of crucial summer elk habitat, which account for 7 percent and 5 percent of the area respectively. Yearlong elk habitat is 36 percent (186,857 acres) of the area. Table 3 summarizes seasonal ranges for pronghorn and mule deer in the area. Most of the area provides yearlong habitat for pronghorn, particularly on the flats. In addition, summer habitat is located on Spruce Mountain itself. The majority of the area is considered intermediate mule deer habitat. The Goshute and Dolly Varden Mountains, as well as portions of Spruce Mountain provide yearlong mule deer habitat. Low elevations on Spruce

Mountain are considered crucial winter range and the higher elevations are utilized during summer.

Table 3. Big Game Seasonal Ranges Within the proposed Eco-Sanctuary

Species	Seasonal Range	Acreage	% of proposed Eco-Sanctuary
Pronghorn	Winter	99,555	19
	Crucial Winter	9,905	2
	Yearlong	254,272	48
	Intermediate	25,303	5
Mule Deer	Summer	8,131	2
	Winter	35,382	7
	Crucial Winter	45,204	9
	Yearlong	104,788	20

Federal Candidate Species

The proposed Eco-Sanctuary provides for Greater sage-grouse habitat sufficient to meet breeding, nesting, brood rearing, summer and winter needs. Acreages of habitat and the percentage of the area are summarized below in Table 4.

Table 4. Greater sage-grouse seasonal habitat within the proposed Eco-Sanctuary

Seasonal Habitat	Acreage	% of proposed Eco-Sanctuary
Preliminary Priority Habitat (PPH)	39,578	8
Preliminary General Habitat (PGH)	97,343	19
Nesting/Early Brood Rearing	71,500	14
Nesting/Early Brood Rearing in PPH	29,955	6
Late Summer	187,850	36
Late Summer in PGH	73,932	14
Winter	90,260	17
Winter in PPH	26,016	5

Species Petitioned for Listing

Pygmy rabbits are found in a variety of vegetation types, including big sagebrush, that are suitable for creating their burrow system. Though no known formal surveys have been completed in the area, pygmy rabbits have been documented in the western portion of the proposed Eco-Sanctuary area, specifically along U.S. Highway 93.

Nevada BLM Sensitive Avian Species

Bald eagles forage during the winter months in the proposed Eco-Sanctuary. Additionally, bald eagles use the Goshute Mountains on the east side of the area as a migration corridor. Suitable habitat on uplands, irrigated lands, and riparian areas is widely dispersed over tens of thousands of acres throughout this area and adjacent allotments.

The proposed Eco-Sanctuary area also provides potential habitat for other avian species on a seasonal or yearlong basis including the northern goshawk, Swainson's hawk, ferruginous hawk, golden eagle, prairie falcon, peregrine falcon, sandhill crane, long-billed curlew, long-eared owl, short-eared owl, flammulated owl, burrowing owl, Lewis's woodpecker, red-naped sapsucker, loggerhead shrike, gray vireo, pinyon jay, juniper titmouse, yellow-breasted chat, vesper

sparrows, bobolink, and black-rosy finches. The area contains potential habitat for the snowy plover, least bittern, Columbian sharp-tailed grouse, mountain quail and black tern, but it is not believed the ranges of these species include this area.

Nevada BLM Sensitive Mammalian, Reptile and Amphibian Species

In addition to pygmy rabbits, the area provides potential habitat for other Nevada BLM Sensitive Mammalian, Reptile and Amphibian Species on a seasonal or yearlong basis including the Preble's shrew, a variety of bats, the short horned lizard, Sonoran mountain kingsnake, and northern leopard frog.

Invertebrate Species of Concern

The Schell Creek mountain snail has been documented within 5 km of the proposed Eco-Sanctuary boundary; however none have been documented inside the boundary. The transverse gland pyrg, however, has been documented in the proposed Eco-Sanctuary area.

A pygmy rabbit.